

Amendments to the Drawings:

A proposed drawing change is submitted herewith. Proposed changes are shown in red. The attached sheets of drawings include changes to Figs. 11, 19 and 109.

Fig. 11 was corrected to include numeral 90 directed to the tube (as seen in Fig. 10 and discussed on page 23 of the specification).

Fig. 19 was corrected to depict the lead line to shell 142 as a ghost line.

Fig. 109 was corrected to accurately depict the lead line 1406 to the rounded nose as discussed on page 77 of the specification.

Attachment: Replacement Sheets (3)
Annotated Sheet Showing Changes (3)

REMARKS

By the present amendment, Applicant has amended Claims 236, 238, 249, and 253 and canceled Claims 242, 248, 250, and 251. Claims 237, 239-241, 244, 245, 247, and 252 stand withdrawn. Independent claims 236, 238, 243, 246, 249, and 253 remain pending in the present application.

Applicant appreciates the courtesies extended to Applicant's representative during the telephone interview held on January 16, 2008. At the interview, the Office Action was clarified to indicate that claim 246 was allowable and claim 248 would be allowable upon overcoming the double patenting rejection. Applicant also notes that the rejection of claims 236 and 238 as being anticipated by Bowie is to patent No. 5,176,275 and not '575 as written.

Applicant has canceled claim 248 with the intent to file a continuing application directed to that claim specifically. As stated in MPEP §1490, a disclaimer is to the terminal portion of the term of the entire patent and not the term of an individual claim. For that reason, Applicant will file a continuing case directed to the subject matter of claim 248 and address the issue of obviousness double patenting thereat.

Claims 237, 239-241, 244, 245, 247, and 252 were held withdrawn from consideration by the Examiner as being directed to a non-elected invention. However, it should be noted that under the provisions of 35 U.S.C. § 121 Applicant reserves the right to file a divisional application directed to the non-elected inventions.

The Examiner objected to the CROSS REFERENCE TO RELATED APPLICATIONS as being confusing in that reference was not made to PCT US 2004 008338. Applicant has corrected the CROSS REFERENCE paragraph to indicate that the instant application claims the benefit of PCT/US2004/008338 which in turn claims the benefit of the four provisional patent applications listed.

The indication by the Examiner in the recent Office Action (December 31, 2007) that Claims 243 and 246 were allowable over the prior art of record is noted with appreciation.

The Examiner indicated that Claims 242, 250, and 251 were informal. These claims have been canceled.

In the recent Office Action the Examiner rejected Claims 236 and 238 under 35 U.S.C. § 102(b) as being anticipated by Bowie (5,176,275) or under 35 U.S.C. § 103(a) as being unpatentable over Duffey (2,580,414) in view of Bowie ('275). Claim 249 was rejected under 35 U.S.C §102 (b) as being anticipated by Miwa (JP 3-100376). Claim 253 was rejected under 35 U.S.C §102 (e) as being anticipated by Cho et al (US 2004/0024382).

Applicant will advance arguments hereinbelow to illustrate the manner in which the presently claimed invention is patentably distinguishable from the cited and applied prior art. Reconsideration of the present application is respectfully requested.

Claim 236, and its method equivalent, claim 238, have been clarified as to the significance of the “dormant state”. Applicant’s shape memory material activator is normally unresponsive to temperature changes; this creates a dormant state. The Examiner’s attention is directed to the specification page 102 – 124 (especially pages 102 and 103) and Figs. 149-199. Thereafter, means are provided to deform the activator *in situ* by only a single irreversible action while the activator is within a predetermined temperature range. Bowie’s activator 96 is deformed, for example, at the factory where the container is made. It is not “dormant” as claimed but could be activated at any time by a “cold” temperature of 40-60 ° F; nor are there means to deform the activator *in situ*. Rather, the Bowie activator goes through a shape recovery and breaks the container.

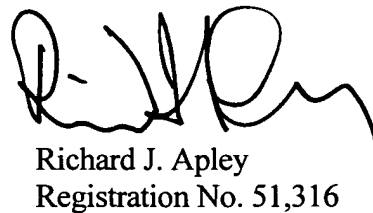
Claims 236 and 238 were also rejected under 35 U.S.C. §103 as unpatentable over Duffey (‘414) in view of Bowie (‘275). The deficiencies of the Bowie reference have been discussed above and are incorporated herein. Duffey uses a rubber band as a constricting element until the container or capsule softens and subsequently causes the container or capsule to rupture. This is similar to Bowie’s Fig. 1, shape memory material activator 24. Therefore, the rejection is flawed because the Bowie activator is not dormant as claimed.

Claim 249 has been rejected under 35U.S.C, §102 (e) as anticipated by Miwa (JP 3-100376). Claim 249 is directed to the variable volume shell discussed in the specification starting at, for example, page 39 and Figs. 38-43 and is directed to the **irreversible path creation**. The amended claim is not anticipated by Miwa since the Miwa pump is temporary in its volume changing (normal, contracted, expanded to normal).

Claim 253 has been rejected under 35 U.S.C. §102(e) as being anticipated by Cho et al (('382). Claim 253 is directed to the devices described on pages 33-38, Figs. 33-37 and pages 117-128, as well as the previous references to the "dormant" state structures. The Cho et al discloses a shape memory material release element 28 that ruptures the membrane 26 via the electrodes 30, 32 and control unit 12. There is NO DISCLOSURE in the Cho et al reference that the delivery of each substance is at different temperature ranges. Cho et al implies that the release is at the same temperature with the same voltage and the variable is time, and rate (pages 6 and 7, ¶ [0059], last sentence thereof). Therefore, it does not appear that Cho et al anticipates claim 253 and the rejection should be withdrawn.

For the foregoing reasons, Applicant respectfully submits that the present application is in condition for allowance. If such is not the case, the Examiner is requested to kindly contact the undersigned in an effort to satisfactorily conclude the prosecution of this application.

Respectfully submitted,



Richard J. Apley
Registration No. 51,316
(703) 486-1000

RJA: dht
Attachments: Replacement Drawing Sheets (3)
Annotated Drawing Sheets (3)